

# SEQUENCE LISTING

<110> Yoganathan, Thillainathan  
Delaney, Allen

<120> CAMK-X1 and its Uses

<130> KINE024

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cag acc acc aac atc cgg aaa acc ttc att ttt atg gaa gtg ctg gga	159
Gln Thr Thr Asn Ile Arg Lys Thr Phe Ile Phe Met Glu Val Leu Gly	
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tca gga gct ttc tca gaa gtt ttc ctg gtg aag caa aga ctg act ggg	207
Ser Gly Ala Phe Ser Glu Val Phe Leu Val Lys Gln Arg Leu Thr Gly	
35 40 45	

aag ctc ttt gct ctg aag tgc atc aag aag tca cct gcc ttc cgg gac	255
Lys Leu Phe Ala Leu Lys Cys Ile Lys Lys Ser Pro Ala Phe Arg Asp	
50 55 60	

agc agc ctg gag aat gag att gct gtg ttg aaa aag atc aag cat gaa	303
Ser Ser Leu Glu Asn Glu Ile Ala Val Leu Lys Lys Ile Lys His Glu	
65 70 75	

aac att gtg acc ctg gag gac atc tat gag agc acc acc cac tac tac	351
Asn Ile Val Thr Leu Glu Asp Ile Tyr Glu Ser Thr Thr His Tyr Tyr	
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ctg gtc atg cag ctt gtt tct ggt ggg gag ctc ttt gac cgg atc ctg	399
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Leu	Val	Met	Gln	Leu	Val	Ser	Gly	Gly	Glu	Leu	Phe	Asp	Arg	Ile	Leu	
95					100					105					110	
gag	cgg	ggg	gtc	tac	aca	gag	aag	gat	gcc	agt	ctg	gtg	atc	cag	cag	447
Glu	Arg	Gly	Val	Tyr	Thr	Glu	Lys	Asp	Ala	Ser	Leu	Val	Ile	Gln	Gln	
				115					120					125		
gtc	ttg	tcg	gca	gtg	aaa	tac	cta	cat	gag	aat	ggc	atc	gtc	cac	aga	495
Val	Leu	Ser	Ala	Val	Lys	Tyr	Leu	His	Glu	Asn	Gly	Ile	Val	His	Arg	
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gac	tta	aag	ccc	gaa	aac	ctg	ctt	tac	ctt	acc	cct	gaa	gag	aac	tct	543
Asp	Leu	Lys	Pro	Glu	Asn	Leu	Leu	Tyr	Leu	Thr	Pro	Glu	Glu	Asn	Ser	
		145					150					155				
aag	atc	atg	atc	act	gac	ttt	ggg	ctg	tcc	aag	atg	gaa	cag	aat	ggc	591
Lys	Ile	Met	Ile	Thr	Asp	Phe	Gly	Leu	Ser	Lys	Met	Glu	Gln	Asn	Gly	
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Ile	Met	Ser	Thr	Ala	Cys	Gly	Thr	Pro	Gly	Tyr	Val	Ala	Pro	Glu	Val	
	175				180				185						190	
ctg	gcc	cag	aaa	ccc	tac	agc	aag	gct	gtg	gat	tgc	tgg	tcc	atc	ggc	687
Leu	Ala	Gln	Lys	Pro	Tyr	Ser	Lys	Ala	Val	Asp	Cys	Trp	Ser	Ile	Gly	
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gtc	atc	acc	tac	ata	ttg	ctc	tgt	gga	tac	ccc	ccg	ttc	tat	gaa	gaa	735
Val	Ile	Thr	Tyr	Ile	Leu	Leu	Cys	Gly	Tyr	Pro	Pro	Phe	Tyr	Glu	Glu	
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Thr	Glu	Ser	Lys	Leu	Phe	Glu	Lys	Ile	Lys	Glu	Gly	Tyr	Tyr	Glu	Phe	
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Glu	Ser	Pro	Phe	Trp	Asp	Asp	Ile	Ser	Glu	Ser	Ala	Lys	Asp	Phe	Ile	
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tgc	cac	ttg	ctt	gag	aag	gat	ccg	aac	gag	cgg	tac	acc	tgt	gag	aag	879
Cys	His	Leu	Leu	Glu	Lys	Asp	Pro	Asn	Glu	Arg	Tyr	Thr	Cys	Glu	Lys	
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gcc	ttg	agt	cat	ccc	tgg	att	gac	gga	aac	acg	gcc	ctc	cac	cgg	gac	927
Ala	Leu	Ser	His	Pro	Trp	Ile	Asp	Gly	Asn	Thr	Ala	Leu	His	Arg	Asp	
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atc	tac	cca	tca	gtc	agc	ctc	cag	atc	cag	aag	aac	ttt	gct	aag	agc	975
Ile	Tyr	Pro	Ser	Val	Ser	Leu	Gln	Ile	Gln	Lys	Asn	Phe	Ala	Lys	Ser	
			290					295					300			
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Lys	Trp	Arg	Gln	Ala	Phe	Asn	Ala	Ala	Ala	Val	Val	His	His	Met	Arg	
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 Phe Ala Leu Lys Cys Ile Lys Lys Ser Pro Ala Phe Arg Asp Ser Ser  
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 Val Thr Leu Glu Asp Ile Tyr Glu Ser Thr Thr His Tyr Tyr Leu Val  
 85 90 95  
 Met Gln Leu Val Ser Gly Gly Glu Leu Phe Asp Arg Ile Leu Glu Arg  
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 Gly Val Tyr Thr Glu Lys Asp Ala Ser Leu Val Ile Gln Gln Val Leu  
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 Ser Ala Val Lys Tyr Leu His Glu Asn Gly Ile Val His Arg Asp Leu  
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 145 150 155 160  
 Met Ile Thr Asp Phe Gly Leu Ser Lys Met Glu Gln Asn Gly Ile Met  
 165 170 175  
 Ser Thr Ala Cys Gly Thr Pro Gly Tyr Val Ala Pro Glu Val Leu Ala  
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 Gln Lys Pro Tyr Ser Lys Ala Val Asp Cys Trp Ser Ile Gly Val Ile  
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 Thr Tyr Ile Leu Leu Cys Gly Tyr Pro Pro Phe Tyr Glu Glu Thr Glu  
 210 215 220  
 Ser Lys Leu Phe Glu Lys Ile Lys Glu Gly Tyr Tyr Glu Phe Glu Ser  
 225 230 235 240  
 Pro Phe Trp Asp Asp Ile Ser Glu Ser Ala Lys Asp Phe Ile Cys His  
 245 250 255  
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 260 265 270  
 Ser His Pro Trp Ile Asp Gly Asn Thr Ala Leu His Arg Asp Ile Tyr  
 275 280 285  
 Pro Ser Val Ser Leu Gln Ile Gln Lys Asn Phe Ala Lys Ser Lys Trp  
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 Arg Gln Ala Phe Asn Ala Ala Val Val His His Met Arg Lys Leu  
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 His Met Asn Leu His Ser Pro Gly Val Arg Pro Glu Val Glu Asn Arg  
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 Pro Pro Glu Thr Gln Ala Ser Glu Thr Ser Arg Pro Ser Ser Pro Glu  
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Ala	Leu	Thr	Gln	Leu	Pro	Cys	Gln	His	Gly	Arg	Arg	Pro	Thr	Ala	Pro
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Ser	Ser	Leu	Val	Pro	Met	His	Gln	Gly	Ser	Leu	Ala	Ala	Gly	Pro	Cys
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Tyr	Cys	Ser	Glu	Pro	Thr	Leu	Leu	Lys	Lys	Ala	Asn	Lys	Lys	Gln	Asn
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Phe	Lys	Ser	Glu	Val	Met	Val	Pro	Val	Lys	Ala	Ser	Gly	Ser	Ser	His
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ctcgagctgg atctggaggc tgactgatgg

Category	Item	Value
1. General Information	1.1. Name	John Doe
	1.2. Age	35
	1.3. Gender	Male
	1.4. Date of Birth	1988-05-15
	1.5. Address	123 Main St, New York, NY 10001
	1.6. Phone Number	(212) 555-1234
	1.7. Email Address	john.doe@example.com
	1.8. Occupation	Software Engineer
	1.9. Education	B.S. in Computer Science
	1.10. Marital Status	Single
2. Employment History	2.1. Company Name	ABC Corp.
	2.2. Position	Senior Software Engineer
	2.3. Start Date	2015-01-01
	2.4. End Date	2020-12-31
	2.5. Salary	\$120,000
	2.6. Reason for Leaving	Job Completion
	2.7. Supervisor	John Smith
	2.8. Projects	Project X, Project Y
	2.9. Skills	Python, JavaScript, React
	2.10. References	John Smith, Jane Doe
3. Education	3.1. Institution	University of California
	3.2. Degree	B.S. in Computer Science
	3.3. Start Date	2010-09-01
	3.4. End Date	2014-05-31
	3.5. GPA	3.8
	3.6. Thesis Title	Advanced Algorithms
	3.7. Advisor	Dr. Jane Doe
	3.8. Publications	None
	3.9. Awards	Dean's List
	3.10. Honors	None
4. Skills	4.1. Skill Name	Python
	4.2. Proficiency	Advanced
	4.3. Skill Name	JavaScript
	4.4. Proficiency	Intermediate
	4.5. Skill Name	React
	4.6. Proficiency	Beginner
	4.7. Skill Name	SQL
	4.8. Proficiency	Intermediate
	4.9. Skill Name	Git
	4.10. Proficiency	Advanced
5. Languages	5.1. Language	English
	5.2. Proficiency	Fluent
	5.3. Language	Spanish
	5.4. Proficiency	Basic
	5.5. Language	Mandarin
	5.6. Proficiency	None
	5.7. Language	French
	5.8. Proficiency	None
	5.9. Language	German
	5.10. Proficiency	None
6. Hobbies	6.1. Hobby	Reading
	6.2. Frequency	Daily
	6.3. Hobby	Golfing
	6.4. Frequency	Weekly
	6.5. Hobby	Gardening
	6.6. Frequency	Monthly
	6.7. Hobby	Traveling
	6.8. Frequency	Quarterly
	6.9. Hobby	Volunteering
	6.10. Frequency	Annually